OPERATING INSTRUCTIONS

IOLG2PN-03208R01 - PROFINET

IO-Link Master



EN







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General information

1 General information

1.1 Information on the operating instructions

These operating instructions supplement the supplied Quickstart guide and include additional information and more detailed descriptions of working with the IOLG2PN-03208R01 PROFINET IO-Link Master.

These operating instructions are intended for qualified personnel and electrical specialists and must be read before starting any work.

1.2 Explanation of symbols

Physical damage

Warnings in these operating instructions are labeled with symbols.

These warnings must be observed at all times and care must be taken to avoid physical damage.



ATTENTION!

... indicates a possible hazardous situation which may lead to physical damage if it is not avoided.

Tips and recommendations



NOTE!

... highlights useful tips and recommendations as well as information for efficient and trouble-free operation.

1.3 Abbreviations

Abbreviation	Description
PNT	PROFINET
EMC	Electromagnetic compatibility
FE	Functional grounding
E	Input
Α	Output

Table 1:Abbreviations

General information



1.4 Limitation of liability

Applicable standards and regulations, the latest state of technological development, and many years of knowledge and experience have all been taken into account when assembling the data and information contained in these operating instructions.

The manufacturer accepts no liability for damage caused by:

- · Failing to observe the operating instructions
- Incorrect use
- Use by untrained personnel
- Opening the housing
- Unauthorized conversions
- Technical modifications
- Use of defective devices
- Use of unauthorized spare parts/consumable parts.

With special variants, where optional extras have been ordered, or owing to the latest technical changes, the actual scope of delivery may vary from the features and illustrations shown here.

1.5 Scope of delivery

Included with delivery:

- IO-Link Master PROFINET IOLG2PN-03208R01
- 4 M12 blind plugs for sealing unused IO-Link ports
- M4 ground strap with M4 x 6 screw
- 20 labels

Supplied documentation:

• Quickstart

1.6 Customer service

If you require any technical information, our customer service department will be happy to help.

See the back page for your representative office.



NOTE!

In order to allow us to deal with the matter quickly, please note down the type designation and order number before calling. This information can be found on the side of the IO-Link Master.



General information

1.7 EU Declaration of Conformity

 \rightarrow You can download the EU declaration of conformity via the Internet from "www.sick.com".

Safety





2 Safety

2.1 Correct Use

The IOLG2PN-03208R01 IO-Link Master is a remote IO-Link input and output module for integration into a PROFINET network.

The IOLG2PN-03208R01 IO-Link Master may only be used in applications in which the safety of personnel does **not** depend on the device function.

SICK AG assumes no liability for losses or damage arising from the use of the product, either directly or indirectly. This applies in particular to use of the product that does not conform to its intended purpose and is neither described nor mentioned in this documentation.

2.2 Incorrect Use

The IOLG2PN-03208R01 IO-Link Master must not be used in explosive environments.

Any other use that is not described as a correct use is prohibited.

No accessories may be connected which have not been explicitly stipulated, in terms of quantity and properties, and approved by SICK AG.



Safety

2.3 Requirements for qualified personnel



ATTENTION!

Damage to the device in the event of improper handling!

Improper handling may lead to physical damage.

For this reason:

• All work must only ever be carried out by the stipulated persons.

The operating instructions state the following qualification requirements for the various areas of work:

• Qualified personnel

are able to carry out the work assigned to them and independently recognize potential risks due to their specialist training, knowledge, and experience, as well as knowledge of the relevant regulations.

Electrical specialists

are able to carry out work on electrical systems and independently recognize potential risks due to their specialist training, knowledge, and experience, as well as knowledge of the relevant standards and regulations.

In Germany, electrical specialists must meet the specifications of the work safety regulation BGV A3 (e.g., master electrician). Other relevant regulations applicable in other countries must be observed.



3 Setup and function

3.1 Setup



Fig. 1: Setup of IO-Link Master PROFINET IOLG2PN-03208R01

- ① Functional ground connection
- ② PROFINET-Port 1 (IN)
- ③ Display with operating buttons and two display LEDs
- ④ Output supply voltage
- Status LED: IO-Link Master / PROFINET communication
- 6 Port 0 (IO-Link, Standard I/O)
- ⑦ Port 2 (IO-Link, Standard I/O)
- 8 Port 4 (IO-Link, Standard I/O)
- 9 Port 6 (IO-Link, Standard I/O)

- 10 Mounting hole
- ① PROFINET Port 2 (OUT)
- 🕲 Label
- [®] Input supply voltage
- (H) Port 1 (IO-Link, Standard I/O)
- ⁽¹⁵⁾ Pin/port LEDs: Signal status
- 10 Port 3 (IO-Link, Standard I/O)
- Dert 5 (IO-Link, Standard I/O)
- 18 Port 7 (IO-Link, Standard I/O)

3.2 Function

The IOLG2PN-03208R01 IO-Link Master is a remote IO-Link input and output module for integration into a PROFINET network.

The eight ports can be configured and used independently of one another. They can either be configured as IO-Link ports or standard I/O ports.



Status indicators and operating elements 3.3

Overview



Status indicators and operating buttons Fig. 2:

① Display LED (configurable) Arrow button

Indicator

Set button

address type

Display LED (configurable)

Cursor for selecting the octet

Cursor for selecting the

2

3

4

5

6

 \bigcirc

IP IP address

- SN Subnet address
 - GW Gateway address
 - 0 Fourth octet
 - Third octet 1
 - 2 Second octet
 - 3 First octet

Function indicators (LEDs)



Fig. 3: Function indicators (LEDs)

- Status LEDs: IO-Link Master / PROFINET communication
- Pin/port LEDs: Signal status 2

Pin/port LEDs: Pin 2 and pin 4 assignment

Port configured as	Right LED	Left LED
IO-Link port	Pin 4 signal status	Pin 2 signal status
Standard I/O port	Pin 2 signal status	Pin 4 signal status

Table 2: Pin/port LEDs: Assignment



Status LEDs: IO-Link Master

Function indicator	Description
US	LED lights up green: Input voltage OK.LED flashes red: Input voltage low (< 18 V)
UA	 LED lights up green: Output voltage OK. LED flashes red: Output voltage low (< 18 V) LED lights up read: No output voltage or voltage < 11 V
SF	 LED off: No error LED red: Error Watchdog Timeout Channel, general or extended diagnostics present System error LED flashes red: Service DCP signal started via bus
BF	 LED off: No error LED red: Low speed of the physical link or no physical link LED flashes red: No data exchange or no configuration

Table 3: Status LEDs: IO-Link Master

Status LEDs: PROFINET communication

Function indicator	Description
100	LED off: Transfer rate 10 Mbit/sLED lights up yellow: Transfer rate 100 Mbit/s
LK1 and LK2	LED green: Data transfer

Table 4: Status LEDs: PROFINET communication

Pin/port LEDs: Standard I/O port

Indicator LEDs	Description
Off	The status of the relevant input or output pin is "0".
Yellow	The status of the relevant input or output pin is "1".
Flashing red	Short-circuit in sensor supply between pin 1 and pin 3 $% \left(1-\frac{1}{2}\right) =0$
Red	 Short-circuit on relevant output, either between pin 2 and pin 3 and/or between pin 4 and pin 3 No high signal on the diagnostic input

Table 5: Pin/port LEDs: Standard I/O port



Pin/port LEDs: IO-Link port

Indicator LEDs	Description	
Green	IO-Link connection active	
Flashing green	No IO-Link connection or incorrect IO-Link device	
Green, fast flashing	IO-Link preoperate during data storage	
Red, fast flashing	 Validation failed Incorrect configuration of IO-Link data length Data storage failed Incorrect IO-Link device for data storage 	
Red	IO-Link short-circuit between pin 3 and pin 4	

Table 6: Pin/port LEDs: IO-Link port



Mounting

4 Mounting

4.1 Mounting the IO-Link Master

Mount the IO-Link Master using the 2 mounting holes with M6 screws and washers.

5 Electrical connection

5.1 Safety

Electromagnetic fault



ATTENTION!

Electromagnetic fault!

Electromagnetic interference can cause the device, system, or nearby devices to malfunction! The IO-Link Master meets the requirements of Class A (industrial applications). Operation in other electromagnetic environments may cause faults or malfunctions.

- The operator must take appropriate precautions.
- Only connect the IO-Link Master to approved supply voltage.
- Only use approved cables.

Working with live parts



ATTENTION!

Equipment damage due to working with live parts!

Working with live parts may result in damage to the equipment.

• Only connect and disconnect cable connections when the power is off.

Incorrect supply voltage



ATTENTION!

Equipment damage due to incorrect supply voltage!

An incorrect supply voltage may result in damage to the equipment.

• Protect the supply voltage with max. 8 A fuses.

Electrical connection

Excessive current load



ATTENTION!

Equipment damage due to excessive current load!

An excessive current load may result in damage to the equipment.

Sensor Intelligence.

- Do not exceed the maximum permissible total current of 8 A for the IO-Link Master.
- Each output provides a maximum current of 2 A.
- The sensors/bus and the actuator should be powered via separate current sources if possible.

Incorrect grounding



ATTENTION!

Incorrect grounding!

An incorrect grounding may result in equipment damage or malfunction.

- The grounding between the IO-Link Master and the machine must be a low-impedance system.
- The ground connection must be as short as possible.

5.2 IO-Link Master electrical connection

- 1. Ensure power supply is not connected.
- 2. Connect the IO-Link Master to the functional grounding of the system using the supplied ground strap. See the figure below.
- 3. Connect supply voltage to "POWER IN" using a suitable cable.
- 4. Make fieldbus connection via PROFINET port 1/PROFINET port 2.
- 5. Connect IO-Link devices or standard devices to the IO-Link ports.
- 6. If provided, connect the next gateway to "POWER OUT".



Electrical connection

Functional grounding



- Fig. 4: Ground connection
- 7. IO-Link ports that are not in use must be sealed with M12 blind plugs to ensure the enclosure rating of IP 67.



NOTE!

Four M12 blind plugs are included in the scope of delivery.

5.3 Connection diagrams

5.3.1 Connection diagram for "POWER IN" and "POWER OUT" supply voltage



Fig. 5: Supply voltage Right: POWER IN 7/8" male connector, 5-pin Right: POWER OUT 7/8" female connector, 5-pin

Contact	Signal	Description
1	0 V	Actuator supply ground
2	0 V	IO-Link Master and/or sensor supply ground
3	FE	Functional grounding
4	DC 24 V	IO-Link Master and/or sensor supply
5	DC 24 V	Actuator supply

Table 7: Description of "POWER IN" and "POWER OUT" supply voltage



Electrical connection

5.3.2 "PROFINET" connection diagram



Fig. 6: PROFINET connection diagram, M12 female connector, D-coded, 4-pin

Contact	Signal	Description
1	Tx+	Transmitter+
2	Rx+	Receiver+
3	Tx-	Transmitter-
4	Rx-	Receiver-

Table 8: PROFINET description, M12 female connector, D-coded, 4-pin

5.3.3 "IO-Link port" connection diagram



Fig. 7: IO-Link port connection diagram, M12 female connector, A-coded, 5-pin

Contact	Signal	Description
1	L+	DC 24 V, 2 A
2	I/O	Input or output (max. 2 A)
3	Μ	GND
4	I/O	Input or output (max. 2 A)
5	FE	Functional grounding

Table 9: I/O port description, M12 female connector, A-coded, 5-pin

Contact	Signal	Description
1	L+	DC 24 V, 1.6 A
2	I/O	Input or output
3	Μ	GND
4	IO-Link	IO-Link, input or output
5	Not connected	Not connected

Table 10: IO-Link port description, M12 female connector, A-coded, 5-pin

For the digital sensor inputs, see EN 61131-2, type 2.

Port used as IO-Link port

Port used as I/O port



6 System integration and configuration

The system integration and the configuration are an example of the connection of the IO-Link Master with the SIEMENS "TIA Portal V13" project planning software.

When using other controllers and project planning software, refer to the relevant documentation.

GSDML file (Generic Station
Description Markup Language)The device data required for project planning are saved in GSDML files. The
GSDML file makes the possible data module available with input or output
of different data widths.

You can download the GSDML files via the Internet page "www.sick.com".

Top module and data modulesPROFINET devices are designed as a modular system. The system is composed of a top module and several data modules.

To configure the IO-Link Master the relevant data modules are assigned to a slot. The project planning software represents the data modules broken down according to the slots.

Integrating the IO-Link Master

You can search for devices using the hardware catalog and move to the PROFINET string using Drag & Drop.



Fig. 8: Hardware catalog



Integrating modules

The IO-Link Master IOLG2PN-03208R01 is used for PROFINET communication. In X1 PN-IO you can select functions, for example "Prioritized startup" or "Domain ring topology".

modules

Overview of assignment of slots and The slots are assigned the following modules at the factory. Slots 2 to 9 are assigned to standard I/O modules.

Slot	Description
1	Top module: Define port functions "input", "output", "diagnostic input" or "IO-Link" or diagnostic messages.
2	IO-Link module or standard I/O module for port 0
3	IO-Link module or standard I/O module for port 1
4	IO-Link module or standard I/O module for port 2
5	IO-Link module or standard I/O module for port 3
6	IO-Link module or standard I/O module for port 4
7	IO-Link module or standard I/O module for port 5
8	IO-Link module or standard I/O module for port 6
9	IO-Link module or standard I/O module for port 7

Table 11: Overview of assignment of slots and modules

Device name, PROFINET address

The communication parameters of the IO-Link Master are displayed by double-clicking on IO-Link Master in the "Device overview" window.

SICK_GW_BA_01 V NICHL zugebrunete Gerate V IOLGZPNOSZOBKO1						Hardware-Katalog
		🛃 Topologiesicht	📥 Netzsich	it 🚺 🤇	Gerätesicht	Optionen
🔐 IOLG2PN03208R01 💌 📰 🍊 🖽 🍳 ± 100% 💌		Geräteübersicht				
۵ ^۲	^	🖞 Baugruppe	Baugr.	Steck	E-Adresse A-	✓ Katalog
10 ³¹⁴			0	0	^	<suchen></suchen>
	=	▶ PN-IO	0	0 ×1	=	Filter
ALGL ^A		IOLG2PN-03208R01_1	0	1		▼ Roofmodul
~		Standard E/A_1	0	2		
		Standard E/A_2	0	3		IOL G2PN-03208801
		Standard E/A_3	0	4		▼ 🖻 Modul
		Standard E/A_4	0	5		Standard IO modules
		Standard E/A_5	0	6		IO-Link modules
		Standard E/A_6	0	7		
		Standard E/A_7	0	8		
	•	Standard E/A_8	0	9		
	_		0	10		
			0	11		
			0	12		
			0	13		
			0	14		
			0	15		
			0	16		
			0	17		
			0	18		
	~		0	19	~	
< III	> 📃	<			>	



Configure here the device names and PROFINET address (IP).

IOLG2PN03208	R01 [Module]			🗟 Eigenschaften	🗓 Info 🔒 🎚 Diagnose
Allgemein	IO-Variablen	Systemkonstanten Text	e		
▼ Allgemein			Neues Subnetz hinzufügen		
Kataloginforr	mation				
▼ PROFINET-Schnit	tstelle [X1]	IP-Protokoll			
Allgemein					
Ethernet-Adr	essen	🗹 IP-Protokoll verwenden			
🔻 Erweiterte O	ptionen		IP-Adresse im Projekt einstellen		
Schnittste	llen-Optionen		IR Advances 100 160	0	
Medienrei	dundanz		192.168.	<u> </u>	
Echtzeit-E	instellungen		Subnetzmaske: 255 . 255 .	255.0	
port 1 - M1	12 [X1 P1 R]		Router verwenden		
port 2 - M1	12 [X1 P2 R]		Router-Adresse: 0 . 0 .	0.0	
Diagnoseadr	essen		Annassen der IP-Adresse direkt ar	m Gerät erlauben	
Identification &	Maintenance		0		
Diagnoseadres:	sen	PROFINET			
Shared Device		PROFINET			
			PROFINET-Gerätename automatisch	n generieren	
				- genericit	
		PROFINET-Gerätename	lolg2pn03208r01		
		Konvertierter Name:	iolg2pn03208r01		
		Gerätenummer:	0		

Setting up device relationships

Click the right mouse button on the selected module.

Press Assign device names.

The tool starts with which you can assign a device name to a module.





Allocating device names

Assign the device name to the marked and found device using the command "Assign name".

The device name must be identical to the names previously configured under "Properties". See Page 21.

The identification is done via the MAC address or via the flash test. For the MAC address refer to the type label on the back of the IO-Link Master.

PROFINE I-Geratename vi	ergeben				X					
		Konfig	guriertes PROFINE	F-Gerät						
		PI	iolg2pn03208r01							
			Тур:	IOLG2PN-03208R0	1					
		Online	e-Zugang							
	т	yp der PG/PC-Schnittste	elle: 🛃 PN/IE		-					
L.		PG/PC-Schnittste	elle: 📓 Intel(R) 825	79LM Gigabit Network	Connection 💌 🖲 🔍					
2										
		Geräte	efilter							
			Nur Geräte gleichen i	Tvos anzeigen						
			Nurfalsch parametri	erte Geräte anzeigen						
			Jivur laisen parametri	ene derate anzeigen						
			JNUR Gerate onne Nan	nen anzeigen						
	Erreichbare Teilnehmer im Netzwerk:									
	IP-Adresse	MAC-Adresse	Тур	Name	Status					
LED blinken	192.168.0.11	00-06-77-C5-40-00	IOLG2PN-03208R0	iolg2pn03208r01	💙 ОК					
				Aktualisieren	Name zuweisen					
Online-Statusinformation:										
					Schließen					

Select the desired device names.



Configure top module

Select top module in the "Device overview" tab.

Define the port functions and diagnostic functions using the "Assembly parameters" menu item.

SICK_GW_BA_01 → PLC_1 [CPU 15	511-1 PN] → Dezentrale Perip	herie → PROFINE	T IO-System (100): PN/IE_1	► IOLG2PN0320	98R01		_∎≡×
				📲 Topologi	esicht	📥 Netzsicht	Gerätesicht
IOLG2PN03208R01	🖽 🔚 🍳 ± 100%	•	Geräteübersicht				
51		^	📸 Baugruppe	Baugr	Steck	E-Adresse A-Adres.	. Тур
20380		=	➡ IOLG2PN03208R01	0	0		IOLG2PN-032081 A
41032			► PN-IO	0	0 ×1		IOLG2PN03208R
1.G2P			IOLG2PN-03208R01_1	0	1		IOLG2PN-032081
10.			IOL_I_2 byte_1	0	2	01	IOL_I2 byte
			Standard E/A_2	0	3		Standard E/A
			Standard E/A_3	0	4		Standard E/A
_			Standard E/A_4	0	5		Standard E/A
		•	Standard E/A_5	0	6		Standard E/A
	<u></u>		Standard E/A_6	0	7		Standard E/A
			Standard E/A_7	0	8		Standard E/A
			Standard E/A_8	0	9		Standard E/A
				0	10		
				0	11		
				0	12		
		~		0	13		~
<		> 🔁	<				>
IOLG2PN-03208R01_1 [Module]				🖳 Eigenschafte	en 🚺	🖳 Info 🛛 🕄 Diagn	ose 📑 🚽
Allgemein IO-Variablen	Systemkonstanten Text	e		-			
▼ Allgemein B:	augruppenparameter	-					
Kataloginformation							
Baugruppenparameter	Moduleinstellungen						=
HW-Kennung							
	Globale Diagnose:	eingeschaltet	•				
	Unterspannung der	Melden	-				
	Sensorversorgung meiden.	merden					
	Aktorversorgung melden:	Melden	-				
	Sensorkurzschluss an Ausgang						
	melden:	Melden	-				
	Port Funktionalität						
•	Funktion Port 0 Pin 4:	Schliesser					
	Funktion Port 1 Pin 4:	Schliesser					
	Funktion Port 2 Pin 4:	Ausgang					
	Funktion Port 3 Pin 4:	Schliesser nach Par	rametrierung				
	Funktion Port 4 Pin 4:	Öffner nach Parame	etrierung				
	Funktion Port 5 Pin 4:	Schliesser	•				
	Funktion Port 6 Pin 4:	Schliesser	•				
	Funktion Port 7 Pin 4:	Schliesser	•				
	Funktion Port 0 Pin 2:	Schliesser	-				~



NOTE!

Configuring port as IO-Link port: For each desired IO-Link port you must configure pin 4 for IO-Link. If the connected IO-Link device has outputs available, you must configure pin 2 of the corresponding port as an output.

Configuring port as standard I/O port: For each port you can assign pin 4 and pin 2 the function "normally closed" or "normally open". The function "Diagnostic input" is additionally available for pin 2.



Configuration

The IO-Link modules and the standard I/O modules must be configured consistent with the configurations of the top module.

If needed these can be moved from the hardware catalog using Drag & Drop in the configuration table. All ports are configured as standard I/O ports at the factory.

If you want to configure the port as a IO-Link port, you must delete the module and replace with an IO-Link module.



SICK_GW_BA_01 → PLC_1 [CPU 1511-1 PN]	Hardware-Katalog							
				🛃 Topologi	esicht	📥 Netzsicht	🛐 Gerätesicht	Optionen
👬 IOLG2PN03208R01 💌 📇 🝊	📃 🔍 🛨 100% 🔍 💌		Geräteübersicht					
2		^	Baugruppe	Baugr	Steck	E-Adresse A-Adres.	Typ	✓ Katalog
10582				0	0		IOLG2PN-03208F A	<suchen></suchen>
5103-			PN-IO	0	0 ×1		IOLG2PN03208R =	Filter
AGU		_	IOLG2PN-03208R01_1	0	1		IOLG2PN-03208F	
N.		-	IOL_I_2 byte_1	0	2	01	IOL_I_2 byte	- Modul
			Standard E/A_2	0	3		Standard E/A	Standard IO modules
			Standard E/A_3	0	4		Standard E/A	To link modules
-			Standard E/A_4	0	5		Standard E/A	IOL ink Input with SIO mode
			Standard E/A_5	0	6		Standard E/A	Standard ElA
	Lo Loode		Standard E/A_6	0	7		Standard E/A	
			Standard E/A_7	0	8		Standard E/A	IOL 1 2 byte
			Standard E/A_8	0	9		Standard E/A	IOL 4 byte
		4		0	10			
				0	11			
		<u>•</u>		0	12			IOL 1 10 byte
				0	13			I IOL L 16 byte
				0	14			I IOL L 24 byte
				0	15			I IOL I 32 byte
				0	16			
				0	17			I IOL O 2 byte
				0	18			
				0	19			IOL 0 6 byte
				0	20			
				0	21			
				0	22			
				0	23			101 0 24 byte
		~		0	24			101 0 32 byte
			1		25		2	
*		1	`				/	ICL_VO_IV_I Dyte

Addressing modulesBy selecting the IO-Link modules you can select I/O addresses in the menu
tree and thus change the addresses.Configuring IO-Link modulesCorresponding to the process data length of the IO-Link device you must
select a matching IO-Link module in the catalog and move it to the corre-
sponding slot per Drag & Drop.Refer to the documentation for the IO-Link device for the required process
data lengths of the IO-Link device.



Configuring standard input/output If one of the possible port pins (pin 4) should be configured with a standard function (input, output), you must use the place holder module "Standard I/O" for the corresponding slot.

To address the inputs and outputs the modules "input pin 2", "input pin 4", "output pin 2" and "output pin 4" must be moved from the catalog in the configuration.

For the SIO function you must integrate the "IO-Link input with SIO mode" module.

Various functions are mapped with the remaining modules in the respective process data areas.

For more information, see Page 26, Chapter 6.1 and Page 27, Chapter 6.2.

During the selection of the IO-Link module you can change the IO-Link parameter of the respective port/pin using the "Assembly parameters" menu item.

For more information, see Page 26, Chapter 6.1 and Page 27, Chapter 6.2.

SICK_GW_BA_01 → PLC_1 [CPU	1511-1 PN] → Dezentrale Perip	herie 🕨 PROFIN	ET IO-System (100): PN/IE_1	IOLG2PN03208	BR01		- • •	×
				🛃 Topologie	sicht	🔥 Netzsic	ht 📑 Gerätesich	nt
H IOLG2PN03208R01	🖽 🏑 🗄 🔍 ± 100%	• •	Geräteübersicht					
		^	Baugruppe	Baugr	Steck	E-Adresse A-	Adres Typ	
0580	·		 IOLG2PN03208801 	Daugi	0	L-Auresse A-	IOLG2PN-032	081.0
1032		=	 PN-IO 	0	0.11		IOL G2PN0320	180 =
SIM			IOLG2PN-03208801_1	0	1		IOL G2PN-0320	081
101-			IOL 1 2 byte 1	0	2	0.1	10L L 2 byte	501
			Standard E/A 2	0	3		Standard E/A	
			Standard E/A 3	0	4		Standard E/A	
			Standard E/A 4	0	5		Standard E/A	
			Standard E/A 5	0	6		Standard E/A	
			Standard E/A 6	0	7		Standard E/A	
			Standard E/A 7	0	8		Standard E/A	
			Standard E/A 8	0	9		Standard E/A	
				0	10			
		_		0	11			
				0	12			
		~		0	13			~
<		> 🗐	<					>
IOL_I_2 byte_1 [Module]				Eigenschafte	n 🏌	Info 🛛 🕄 I	Diagnose	-
Allgemein IO-Variablen	Systemkonstanton Text							
	- System to state - Text							
Kataloginformation	Baugruppenparameter							
Fingänge	Zyklus Finstollung							
Baugruppenparameter	Zykius-Einsteinung							
E/A-Adressen	Zykluszeit-Basis:	Multiplikator*0.1m	s 🗸					
HW-Kennung	Multipliketer	0	-					
	Multiplikator.							
	Datenauswahl							
	Datenausschnitt-Offset:	0						
	max Eingangsdatenlänge:	2						
	inan enigengraatenange.	-						
-	Validierung							
	Validierungsmodus:	keine Validierung	•					
	Hersteller ID 0:	0						
	Hersteller ID 1:	0						
	Device ID 0:	0						
	Device ID 1:	0						
	Device ID 2:	0						
	Seriennummer	[
	senennummer.							
								¥



Ending configu	uration	Download the configuration in the hardware configuration.
		If a bus error is still displayed on the module, the possible causes are possible:
		Line break (no IO-Link device connected)
		 IO-Link device error, e.g., external supply voltage not connected
		Validation failed
		 Device relationship not established. Select the heading "Accessible nodes" via the "Online" tab. The network is scanned and checked whether the device responds under the correct device name and under the correct IP address. If necessary adapt the Ethernet address or the device name. Assign the device name to the device again and download the configuration.
		• IO-Link is configured in the top module, however the slot module is miss- ing or is integrated at the wrong location.
		• The IO-Link module is in the correct slot, however pin 4 for the IO-Link port as not configured via the top module for IO-Link.
6.1 Co	nfiguring module	properties
Assembly para settings"	ameter "Module	 Global diagnostics: With this function all diagnostic messages of the module can be allowed or suppressed. Optical diagnostic signals and diagnostics in configured diagnosis modules are not affected.

- Undervoltage of the sensor supply: With this function the diagnostics message "Undervoltage sensor supply" of the module is allowed or suppressed. Optical diagnoses and diagnostics in configured diagnosis modules are not affected.
- Undervoltage of the actuator supply: With this function the diagnostics message "Undervoltage actuator supply" of the module is allowed or suppressed. Optical diagnostic signals and diagnostics in configured diagnosis modules are not affected.

Here you define the function for each individual port/pin:

Option	Description
Normally open	Input as N/O contact
Normally closed	Input as N/C contact
Output	Output function
IO-Link	IO-Link function
Normally open after configuration	An IO-Link device can be configured via IO-Link and then set in an SIO module, in which the IO-Link port/pin func- tions as a simple switch input.
Normally closed after configuration	An IO-Link device can be configured via IO-Link and then set in an SIO module, in which the IO-Link port/pin func- tions as a simple normally closed input.

Table 12:Port functionality

Assembly parameter

"Port functionality"



Safe state

This function is an extension of an output configuration of the relevant port pin. For each port pin, you can define a safe state which should be assumed if bus communication is lost.

6.2 Bit mapping and function of the modules

IO-Link	modules	scheme
---------	---------	--------

IO-Link modules are structured according to the following scheme:

• IOL_I/O_x/xBytes

	Description									
	I/O		 I: Inpu O: Ou I/O: In 	 I: Input data O: Output data I/O: Input and output data 						
	x/xBytes Amount of process data used. The amount should be equal to or greater than the process data length of the IO-Link device.									
	Table 13:	IO-Link m	nodule sch	eme						
Standard I/O modules	If a port is modules the catalo are mapp	s configure "Input pin og into the oed in this	ed as a st 2", "Inpu configur module.	andard I/ It pin 4", ' ation. The	′O, first yc "Output p e process	u must m in 2 and " data of th	ove one c output pi e individu	of the n 4" from al ports		
	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0		
	Port 7	Port 6	Port 5	Port 4	Port 3	Port 2	Port 1	Port 0		
Short-circuit pin 2 or short circuit pin 4	This mod ground or	ule indicat n a port.	tes that tl	here is a s	short-circu	uit betwee	en a set o	utput and		
		-		D:+ /	Dit 2	Bit 2	Rit 1	Bit 0		
	Bit 7	Bit 6	Bit 5	BIT 4	DIL 3	BICL	DICI			
	Bit 7 Port 7	Port 6	Port 5	Port 4	Port 3	Port 2	Port 1	Port 0		
Actuator warning pin 2 or	Bit 7 Port 7 This mod	Port 6 ule indicat	Port 5 tes if a vo	Port 4 Port 4	Port 3	Port 2 n a non se	Port 1	Port 0		
Actuator warning pin 2 or actuator warning pin 4	Bit 7 Port 7 This mod Bit 7	Bit 6 Port 6 ule indicat	Bit 5 Port 5 tes if a vo Bit 5	Port 4 Potage is s Bit 4	Port 3 upplied of Bit 3	Port 2 n a non se Bit 2	Port 1 et output.	Port 0 Bit 0		
Actuator warning pin 2 or actuator warning pin 4	Bit 7 Port 7 This mod Bit 7 Port 7	Port 6 ule indica Bit 6 Port 6	Port 5 tes if a vo Bit 5 Port 5	Port 4 Port 4 Itage is s Bit 4 Port 4	Port 3 upplied of Bit 3 Port 3	Port 2 n a non se Bit 2 Port 2	Port 1 et output. Bit 1 Port 1	Port 0 Bit 0 Port 0		
Actuator warning pin 2 or actuator warning pin 4 Restart pin 2 or restart pin 4	Bit 7 Port 7 This mod Bit 7 Port 7 This mod tor short-	Bit 6 Port 6 ule indicat Bit 6 Port 6 ule enable circuit.	Port 5 tes if a vo Bit 5 Port 5 es you to a	Port 4 Port 4 Ditage is s Bit 4 Port 4	Port 3 upplied of Bit 3 Port 3 the startu	Port 2 n a non se Bit 2 Port 2	Port 1 et output. Bit 1 Port 1	Port 0 Bit 0 Port 0		
Actuator warning pin 2 or actuator warning pin 4 Restart pin 2 or restart pin 4	Bit 7 Port 7 This mod Bit 7 Port 7 This mod tor short- • Bit set	Bit 6 Port 6 Ule indicat Bit 6 Port 6 Ule enable circuit. : Automati	Bit 5 Port 5 tes if a vo Bit 5 Port 5 es you to b ic restart	Port 4 Port 4 Ditage is s Bit 4 Port 4	Port 3 upplied of Bit 3 Port 3 the startu	Port 2 n a non se Bit 2 Port 2	Port 1 et output. Bit 1 Port 1	Port 0 Bit 0 Port 0		
Actuator warning pin 2 or actuator warning pin 4 Restart pin 2 or restart pin 4	Bit 7 Port 7 This mod Bit 7 Port 7 This mod tor short- • Bit set • Bit not	Bit 6 Port 6 Ule indicat Bit 6 Port 6 Ule enable circuit. : Automati set: No au	Bit 5 Port 5 tes if a vo Bit 5 Port 5 es you to a tic restart utomatic	Port 4 Port 4 Ditage is s Bit 4 Port 4 configure	Port 3 upplied of Bit 3 Port 3 the startu	Port 2 n a non se Bit 2 Port 2 up behavio	Port 1 et output. Bit 1 Port 1 or after an	Port 0 Bit 0 Port 0		
Actuator warning pin 2 or actuator warning pin 4 Restart pin 2 or restart pin 4	Bit 7 Port 7 This mod Bit 7 Port 7 This mod tor short- • Bit set • Bit not Bit 7	Bit 6 Port 6 Ule indicat Bit 6 Port 6 Ule enable circuit. : Automati set: No au	Bit 5 Port 5 tes if a vo Bit 5 Port 5 es you to ic restart utomatic Bit 5	Port 4 Port 4 Itage is s Bit 4 Port 4 configure restart; re Bit 4	Port 3 upplied of Bit 3 Port 3 the startu	Port 2 n a non se Bit 2 Port 2 up behavior st be trigg Bit 2	Port 1 et output. Bit 1 Port 1 or after an ered man Bit 1	Port 0 Bit 0 Port 0 n actua- nually. Bit 0		
Actuator warning pin 2 or actuator warning pin 4 Restart pin 2 or restart pin 4	Bit 7 Port 7 This mod Bit 7 Port 7 This mod tor short- • Bit set • Bit not Bit 7 Port 7	Bit 6 Port 6 Ule indicat Bit 6 Port 6 Ule enable circuit. Automati set: No au Bit 6 Port 6	Bit 5 Port 5 tes if a vo Bit 5 Port 5 es you to a tic restart utomatic Bit 5 Port 5	Port 4 Port 4 Ditage is s Bit 4 Port 4 configure restart; re Bit 4 Port 4	Port 3 upplied of Bit 3 Port 3 the startu estart must Bit 3 Port 3	Port 2 Port 2 n a non se Bit 2 Port 2 up behavioust be trigg Bit 2 Port 2	Port 1 et output. Bit 1 Port 1 or after an ered mar Bit 1 Port 1	Port 0 Bit 0 Port 0 n actua- nually. Bit 0 Port 0		



IO-Link diagnostic settings	The IO-Li this mod the diagr	nk diagno ule. The d ìosis is se	sis for the iagnosis c t.	e respectiv data can k	ve port is be read of	activated ut via PLC	or deacti [,] /fieldbus	vated via only if			
	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0			
	Port 7	Port 6	Port 5	Port 4	Port 3	Port 2	Port 1	Port 0			
IO-Link communication	Bit status for each IO-Link port, feedback whether a communication is established.										
	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0			
	Port 7	Port 6	Port 5	Port 4	Port 3	Port 2	Port 1	Port 0			
Female connector peripheral error	This mod	ule indica	ites wheth	ner an erro	or has oc	curred on	a port.				
	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0			
	Port 7	Port 6	Port 5	Port 4	Port 3	Port 2	Port 1	Port 0			
Short-circuit sensor supply	This mod on a port	lule indica	ites wheth	ner there i	is a short	circuit in	the senso	r supply			
	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0			
	Port 7	Port 6	Port 5	Port 4	Port 3	Port 2	Port 1	Port 0			
Station diagnostic	This module indicates which error has occurred.										
	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0			
	IO-Link short- circuit	Actuator warning	Actuator short- circuit	Sensor voltage short- circuit	External error	res.	US actu- ator	US sensor			
Display LED	This mod	ule enabl	es you to	control th	e display	LEDs.					
	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0			
							Green LED	Red LED			
Assembly parameter "Cycle settings"	The spee IO-Link c	d of the l(ycle time i	D-Link cor s calculat	nmunicat ed with th	ion is affe	ected by tl es "Basic	his param cycle time	eter. The e" and			
	"Multiplie between	er". The tii 0 to 63 (c	ne is sele lecimal) fo	cted usin or the "Mi	g the "Ba ultiplier".	sic cycle t	ime" field	. Input			
Assembly parameter "Data selection"	These se	ttings only	y apply to	the input	data.						
	Establish offset". I field "Ma	the start nput the a x. input da	byte of th ictual proc ata length	e process cess data ".	s data wit length of	h the field the IO-Lir	l "Data se nk device	gment in the			
	Using an IO-Link module with corresponding process data length you can adapt the visible data window to the input data.										



Assembly parameter "Validation"

The following options are available for validation:

Option	Description	
No validation	Validation is deactivated. Every IO-Link device is accepted.	
Compatibility (VID + DID)	Vendor ID and device ID are compared with the module data. IO-Link communication only starts if they match. Vendor ID and Device ID are input in decimals.	
Identity (VID + DID + SN)	Vendor ID, device ID, and serial number are compared with the module data. IO-Link communication only starts if they match. Vendor ID and Device ID are input in "decimals", the serial number is input in "visible string".	



Example

- Ma	lida	tion
va	IIUc	111011

Validation mode:	compatible 💌
Vendor ID 0:	0
Vendor ID 1:	26
Device ID 0:	128
Device ID 1:	0
Device ID 2:	7
Serial Number:	0

Fig. 9: Validation example

- VID = 26 (SICK AG)
- DID = 8388615 (0x800007)
- VID: 0
- VID1:26
- DID0: 128 (0x28)
- DID1: 0 (0x00)
- DID2: 7 (0x07)



Parameter server

The following options are available for the parameter server:

Option	Description	
Switched on	Data storage function is active. Parameter and identifica- tion data for the IO-Link device is saved retentively.	
Switched off	Data storage function is deactivated. The saved data are retained.	
Deleted	Data storage function is deactivated. The saved data is deleted.	
Enable of block upload	 Enable or block the parameter data upload into the IO-Link Master port data storage. Enable upload: The IO-Link Master starts to upload the parameter data as soon as an IO-Link device requests an upload (upload flag set) or if there is no data stored in the master port, e.g., after the data has been deleted or before the first data upload Block upload: If the upload is blocked, the data is not uploaded. If an IO-Link device sends an upload request, a download starts if there are different parameter sets since an upload cannot take place. The download must be enabled. 	
Enable or block download	 Enable or block the parameter data download to the IO-Link device. Enable download: As soon as the saved parameter data in the parameter server of the port differs from a connected IO-Link device and there is no upload request from the IO-Link device, a download is performed. Block download: If the download is blocked, the parameter data is uploaded if it is activated. The upload flag for the IO-Link device does not need to be set in this case. The upload must be enabled. 	
Block upload and download	If both upload and download are blocked, the parameter data is not exchanged. However, the IO-Link device still communicates with the IO-Link port.	

Table 15:Parameter server



NOTE!

After the parameter data upload, the vendor ID and device ID are retained until the data sets of the connected IO-Link device are deleted.

A validation takes place when the connected IO-Link device starts up. This means that only one IO-Link device of the same type can be used for data storage. In order to use an IO-Link device of a different type, you must delete the content of the parameter server.



7.1 Diagnostic messages

The diagnostic message that the IO-Link Master generates with an error, is usually read out and processed by the PLC. It is also possible to read out and evaluate the diagnostics using function modules from the IO-Link Master.

The diagnostic message is 34 bytes long and divided into 3 blocks: BlockHeader, AlarmSpecifier and ChannelProperties

Byte	Value	Designation	Block
0	00	Plack Type	
1	02	ыоск туре	
2	00	Plaak Langth	
3	1E	BIOCK LENGUI	
4	01	Block Version High	
5	00	Block Version Low	
6	00	Alarm type	
7	01	Alann type	
8	00		
9	00		
10	00		
11	00		PlaakHaadar
12	00	Slot number	DIUCKHEduei
13	01	Slot number	
14	00	Subslat number	
15	01	Subside number	
16	00	Module ID	
17	00		
18	00		
19	17		
20	00		
21	00	Submodulo ID	
22	00		
23	01		
24	A8	Alarm Specifier	
25	36	Alarm Specilier	
26	80	Llear Structure ID	AlarmSpecifier
27	00		Alamopeciliei
28	00	Channel number	
29	08		
30	08	Channel Properties	
31	00	Channel Properties	ChannelProperties
32	00		ChannelProperties
33	1A	спаппетеног туре	



7.2 BlockHeader

Designation	Byte	Description	Possible values	Description
Block Type	0 - 1	2 bytes, Data type definition	0x0002	Alarm Notification Low
Block Length	2 - 3	2 bytes of data, which describe the length of the following diagnostic message. For the complete diag- nostic message add the 2 bytes from "Block type" and the 2 bytes from "Block length".	-	-
Block Version High	4	1 byte, preset to 0x01	-	-
Block Version Low	5	1 byte, preset to 0x00	-	-
Alarm Type	6 - 7	2 bytes, here is the information on which "Alarm type" it is	0x0001	Diagnostics
API	8 - 11	4 bytes, Default = 0	0x0000000	Default value
Slot	12 - 13	2 bytes, describes which slot of the module reports an error.	0x0001	Slot 1
Subslot	14 - 15	2 bytes, describes which subslot of the slot reports an error	0x0001	Subslot 1
Module ID	16 - 19	4 bytes, describes which mod- ule is inserted in the respective slot. "Module ID" is stored in the GSDML.	0x00000017	IOLG2PN-03208R01 (header module)
Submodule ID	20 - 23	4 bytes, describes which submod- ule is used with the respective module. "Submodule ID" is stored in the GSDML.	0x0000001	IOLG2PN-03208R01 (header module)

The "BlockHeader" is the first part of the diagnostic and is 24 bytes long.

Table 17: BlockHeader

7.3 AlarmSpecifier

The "AlarmSpecifier" contains 2 bytes (24 and 25), which are made up as follows:

Designation	Bit	Description	Possible values	Description
Sequence Number	0 - 10	This counter is incremented with every new diagnostic message.	_	-
Channel Diagnostic	ic 11	11 Channel specific diagnostics	0x00	No channel specific diagnostics present
			0x01	Channel specific diagnostics present
Manufacturer 12 Specific Diagnosis	12 Manufacturer specific diagnosis	0x00	No manufacturer specific diag- nostics present	
		0x01	Manufacturer specific diagnostics present	



Designation	Bit	Description	Possible values	Description
Submodule 13 Diagnostic State	13	Submodule diagnostics	0x00	No other submodule diagnostics present
			0x01	At least one other diagnostic of the submodule available
Reserved	14	-	-	-
AR Diagnostic State 1	15	Module diagnostics	0x00	No further diagnostics of the module available
			0x01	At least one other diagnostic of the module available
User Structure Ident		2 bytes, describes the type of diagnostics	0x8000	Channel specific diagnostics

Table 18: AlarmSpecifier

Channel Number

2 bytes of data, which describe where the error occurred on the module.

Possible values		
Bit	Value	Position
0 to 3	0x00	Port 0 Pin 4
	0x01	Port 1 Pin 4
	0x02	Port 2 Pin 4
	0x03	Port 3 Pin 4
	0x04	Port 4 Pin 4
	0x05	Port 5 Pin 4
	0x06	Port 6 Pin 4
	0x07	Port 7 Pin 4
	0x08	Port 0 Pin 2
	0x09	Port 1 Pin 2
	OxOA	Port 2 Pin 2
	0x0B	Port 3 Pin 2
	OxOC	Port 4 Pin 2
	OxOD	Port 5 Pin 2
	0x0E	Port 6 Pin 2
	OxOF	Port 7 Pin 2
		Definitions of error cases
Bit 4	0	Error on a port of the IO-Link Master
	1	Error on an IO-Link device Bit 0 to 3 indicate which port the defective device is connected to.
	2	Error on IO-Link Master In this case bits 0 to 3 have no significance, since the error affects the entire IO-Link Master, as for example "with undervoltage".

Table 19: Channel Number





7.4 ChannelProperties

Designation	Bit	Possible values	Description
Туре	0 - 7	0x00	Used if the "Channel Number" is "0x8000" or does not apply to any of the types defined below.
		0x01	1 Bit
		0x02	2 Bit
		0x03	4 Bit
		0x04	8 Bit
		0x05	16 Bit
		0x06	32 Bit
		0x07	64 Bit
		0x08 – 0xFF	Reserved
Accumulative	8		Not used, always 0
Maintenance	9	0x00	Diagnostics
	10	0x00	Diagnostics
Specifier	11 - 12	0x00	Not used
		0x01	Diagnostics occurred
		0x02	Diagnostics gone
		0x03	Diagnostics gone, but one other is still active
Direction	13 - 15	0x00	Manufacturer specific
		0x01	Channel used as input
		0x02	Channel used as output
		0x03	Channel used as input and output

The "ChannelProperties" comprise 2 bytes and are subdivided as follows:

Table 20: ChannelProperties



7.5 ChannelErrorType

Error code in hex	Description	
0x0000	Unknown error	
0x0001	Short-circuit	
0x0002	Undervoltage	
0x0003	Overvoltage	
0x0004	Overload	
0x0005	Temperature limit exceeded	
0x0006	Line break	
0x0007	Upper threshold exceeded	
0x0008	Lower threshold not reached	
0x0009	Error	
0x001A	External error	
0x001B	Sensor has incorrect configuration (IO-Link device)	
0x0021	Sensor supply short-circuit	
0x0037	Actuator warning	
0x0038	Actuator short-circuit	
0x0039	Bus/sensor supply undervoltage	
0x003C	Actuator supply under voltage	

Table 21:ChannelErrorType



8 Operation via the web server

8.1 General information

The IO-Link Master has an integrated interface for a web server.

You can use the web server to carry out the following tasks:

- Call up detailed information on the current status of the IO-Link Master.
- Call up information about connected IO-Link devices.
- Configure connected IO-Link devices.

Make sure that the device is correctly integrated into the network. To set up a connection with the web server, enter the IP address of the IO-Link Master into the address bar in the browser. A welcome page appears.

Use the current version of Internet Explorer and deactivate the proxy server.

8.2 Views

The web server comprises the following views:

- Welcome page
- Home
- Diagnostic process
- Device properties
- Diagnostic module
- Configuration
- Contact



Welcome page



- Fig. 10: Welcome page of the web server
- ① IP address of the IO-Link Master in the address bar of the browser
- 2 Device designation, in this case IOLG2PN-03208R01
- ③ Navigation bar for switching between the views
- ④ View, in this case "Welcome page" view
- (5) "Play" button
- Click the "Play" button to switch to the "Home" view.



"Home" view

- Displays information about the IO-Link Master
- Displays the network activity of the IO-Link Master

Home / Diagnostic Process	/ Device Properties / Diagnostic Module / Configurations /	Contact
IOLG2PN-03208R01 Basic Module Information		
Module Information Product Name: Order Code: Module Description: Module Location: Firmware Revision: Hardware Revision: Network Configuration Device name:	IOLG2PN-03208R01 6053253 2.2 (1.1.2) 5	On the Home page the user will find all the key data and information about the module. This is a read-only page. No changes or entries are possible. You can use the Refresh button to reload the page if the information doesn't get updated automatically. Refresh
IP Address: Subnet Mask: Gateway Address: MAC Address: Link Speed Port 1: Link Speed Port 2:	192.168.0.3 255.255.255.0 192.168.0.3 00:06:77:C5:40:00 100 Mbit/s FULL No Link	





select the corresponding port in the figure on the right-hand side.



NOTE!

You cannot use the web server to configure the IO-Link Master. This requires a suitable controller with the relevant project planning software.



"Device properties" view

- Displays the process data for the relevant IO-Link device
- To display the information and configuration for the right IO-Link device, select the corresponding port in the figure on the right-hand side.

Home / Diagnostic Process	/ Device Properties / Diagnostic Module / Configurations /	Contact	
IOLG2PN-03208R01			
IO Link Device Properties	Port 0)		
Identification Data		On the Device Properties page you can get	
Vendor ID:	0x001A	status.	
Device ID:	0x80000B	If an IO-Link device is connected, you can choose the related port and get information	
Vendor Name:	SICK AG	about it. Also there is the ability to	
Vendor Text:	SICK Sensor Intelligence.	look at the manual of the device.	
Product Name:	MPS-064TLTQ0	You can use the Refresh button to reload	
Product ID:	1062507	the page if the information doesn't get	
Product Text:	Magnetic Cylinder Sensor	updated automatically.	
Serial Number:	14250041	Refresh	
Hardware Revision:	1.00		
Firmware Revision:	V5.14		
Application specific tag:	SICK AG	GILLER	
Process Data		● [■] O ^{●●} O [■] ○	
Inputs (hex):	0F 78		
Outputs (hex):	no outputs		
Parameter Data			
Index:			
Subindex:			
Data (hex):			
Result:		C CE	
	Read O Write Apply Clear		
Events			
Current Event:	no Event		
Parameter server content			
Vendor ID:	00 00		
Device ID:	00 00 00		
Checksum:	00 00 00 00		
Content:	(none)		

NOTE!

You cannot use the web server to set output data for the IO-Link device. This requires a suitable controller with the relevant project planning software.



"Device properties" view – port for the desired IO-Link device selected		ort for	• Configuration of the relevant IO-Link	device
		elected	• Parameter data: Read and write IO-Link parameter data. For the indices and subindices, please refer to the operating instructions for the relevant IO-Link device.	
			• Events: Displays the current even	ts for the IO-Link device
			Parameter server content: Display server	is the content of the parameter
"Diagn	ostic module" view		• Displays the current status of the IO	Link Master
			Displays the current status of the ne	twork
Home	/ Diagnostic Process /	Device Prope	ties / Diagnostic Module / Configurations	/ Contact
IOLG Inforr	2PN-03208R01 nation about current Modu	ule status		
US UA SF BF		BF	100 LK1 100 LK2 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Interpage Diagnostic Module shows the head-module status. This status is shown by the network and power supply status LEDs and the Description. You can use the Refresh button to reload the page if the information doesn't get updated automatically. Refresh LED functions overview: US OK Low UA DK Low SF System DCP signal service BF No config No config No date service 100
US	Sensor and Module Supply	Supply volta	ae is OK	100 Mbit/s 10 Mbit/s
UA	Actor Supply	Supply volta	- ge is OK	L/A No link
SF	System failure	Channel, ger sytem error	neric or extended diagnosis present;	activity activity
BF	Bus failure	No error		
100	Link Speed 1	Data rate on	Port 1 is "100 Mbit/s FULL"	
LK1	Link Activity 1	Network con	nection on Port 1 is active	
100	Link Speed 2			
LAZ	Link Activity 2	NO NELWOIK		



"Configuration" view	 You can use this view to change the description and position for the IO-Link Master. To change the data, enter the following user name and password: User name: sick Password: IOLG2 	
	NOTE!If the access with the password above is not possible, please test with the following passwords:	
	• IOLGP	
	• IOLG2	
	• IOLG2P	
	• IOLG2;	
Home / Diagnostic Process / Device Pro IOLG2PN-03208R01 Module Configuration General Information Modul Description: Modul Location:	erties / Diagnostic Module / Configurations / Contact On the Module Configurations page there is the ability to configurate the module. Network settings such as user specific information texts can be set on this page.	



"Contact" view

• Contact information for SICK AG





Cleaning and maintenance

9 Cleaning and maintenance

SICK devices are maintenance-free. We do recommend checking the screw and male/female connections and cleaning the device at regular intervals.

10 Disposal

Please observe the following when disposing of the device:

- Do not dispose of the device in domestic refuse.
- Dispose of the device according to the relevant country-specific regulations.



Technical data

11 Technical data



NOTE!

You can download, save, and print the relevant online data sheet with technical data, dimensions, and connection diagrams for the IO-Link Master online at "www.sick.de". Enter the order number "6053253" for the IOLG2PN-03208R01 IO-Link Master on the web page.

11.1 Dimensions





Fig. 11: Dimensions of the PROFINET IO-Link Master IOLG2PN-03208R01 Dimensions in mm (inch)



Technical data

11.2 Power supply

Supply voltage	DC 18 V 30.2 V
Connection	7/8" male connector, 5-pin
Functional grounding	1 FE connection for M4 ground strap
Current consumption at 24 V DC	130 mA
Residual ripple	< 1%
Input ports/output ports	8 x M12 female connector, 5-pin, A-coded
Table 22: Supply	

Table 22: Supply

11.3 PROFINET

PROFINET port	2 x 10Base-/100Base-Tx
PROFINET port connection	2 x M12-female connector 4-nin D-coded
Data transmission rate	10 / 100 Mbit/s
Suitable cable types in accordance with IEEE 802.3	Screened, twisted cable pair, at least STP CAT5 or STP CAT5e
Max. cable length	100 m
Flow control	Half duplex / full duplex (IEEE 802.33x-Pause)
Table 23: PROFINET	

11.4 Ambient conditions

Mark of conformity	CE
EMC	EN 61000-6-2
	EN 61000-6-4
Ambient temperature range	 Operation: -5 °C +70 °C
	• Storage: -25 °C +70 °C
Enclosure rating (IEC 60529)	IP 67 when plugged in and screwed together
Shock resistance	EN 60068-2-27
Vibration resistance	EN 60068-2-6, EN 60068-2-64

Table 24: Ambient conditions

Technical data

11.5 Structural design

Dimensions	\rightarrow See Page 45, Chapter 11.1.
Housing material	Zinc die cast, matte nickel-plated
Weight	Approx. 670 g
Mounting	2 mounting holes for M6 screws

Table 25: Structural design

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